Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in this application.

Listing of Claims

1. (Currently Amended) An explosion protection valve (1) having a housing (2) and having a rotationally symmetrical closing body (3), guided within the housing, which, under the influence of a dynamic pressure can be pressed out of an open setting, in at least one motional direction (s) against a valve seat (4) into a sealing close setting and can be locked in a closed position by means of a catch device which is a collecting cone (15), wherein

on the outer side of the closing body (3) in the region of the flow cross-section (24) formed between the closing body in the open setting and the housing, there are disposed interfering means (18, 25) for generating a turbulent flow for rapidly increasing the dynamic pressure inducing the closing movement from said open position into the closed position in which the closing body is locked by the catch device, the interfering means have at least one interfering edge (26), which extends at least partially along a flow cross-section (24) and at which at least two wall portions meet at an angle less than 180°,

whereas the interfering edge (26) is disposed on the closing body on its outer diameter (D1),

the closing body (3), at least on the side facing the valve seat (4) , runs in relation to its cross section from its center axis (7) to the outer diameter (D1) in at least two differently inclined or curved outer wall portions (5, 6, and 5', 6' respectively), said outer wall portions begin with a first outer wall portion (6 and 6' respectively) and then with a second outer wall portion 5 and 5' respectively), whereas the first outer wall portion defining an outwardly convex elliptical~~ly curved~~ curve and the second outer wall portion defining a conical path.

2. (Previously submitted) The explosion protection valve as claimed in claim 1, characterized in that the interfering means (25, 25a, 26) are disposed in the region of the flow cross-section (24) formed between the closing body in the open setting and the housing (2).

3. (Previously presented) The explosion protection valve as claimed in claim 15, characterized in that the baffles having one or more interfering rings (25a, 25b) disposed on the closing body (3).

4. – 6. Cancelled.

7. (Previously presented) The explosion protection valve as claimed in claim 1, wherein the first outer wall portion and the second outer wall portion run approximately on a diameter (D2), which is equal or almost equal to a diameter (D3) of the valve seat (4).

8. (Currently amended) The explosion protection valve as claimed in claim 1, characterized in that the closing body (3) runs in relation to its cross section from its center axis (7) to the outer diameter (D1), ~~to begin with preferably~~ in an elliptically curved or conical toward~~, and then in~~ a frustoconical path.

9. (Previously presented) The explosion protection valve as claimed in claim 1, characterized in that the interfering edge (26) is disposed on the housing in the connecting region of two housing halves (2, 2').

10. (Previously presented) The explosion protection valve as claimed in claim 1, wherein said two wall portions forming an interfering edge meet at an angle (α) between 60° and 179°.

11. (Previously presented) The explosion protection valve as claimed in claim 1, characterized in that the two wall portions forming an interfering edge form a circumferential recess in the closing body and/or in the housing (2).

12. (Previously presented) The explosion protection valve as claimed in claim 1, wherein said closing body (3) is configured as a hollow body.

13. (Previously presented) The explosion protection valve as claimed in claim 12, wherein the closing body is made from sheet metal and in that it is fastened on a guide tube (12).

14. (Previously presented) The explosion protection valve as claimed in claim 13, wherein the closing body (3) is formed from two identical shells (16, 16'), which are joined together on the outer diameter (D1).

15. (Previously presented) The explosion protection valve as claimed in claim 1, characterized in that the interfering means are baffles jutting into the flow cross-section (24).

16. (Previously presented) The explosion protection valve as claimed in claim 1, characterized in that additional interfering means (25, 25a, 26) for generating a turbulent flow are disposed on the inner side of the housing (2).

17. (Currently amended) A shut-off device having a housing (2) and having a rotationally symmetrical closing body (3), guided within the housing, which, under the influence of a dynamic pressure can be pressed out of an open setting, in at least one motional direction (s) against a valve seat (4) into a sealing close setting, wherein

on the inner side of the housing (2) in the region of the flow cross-section (24) formed and defining an annular passage between the closing body and the housing, there are disposed interfering means (25, 25a, 26) for generating a turbulent flow, whereas

said closing body (3) is comprised of at least two differently inclined or curved outer wall portions (5, 6, and 5', 6' respectively), said outer wall portions begin with a first outer wall portion (6 and 6' respectively) and then with a second outer wall portion 5 and 5' respectively), whereas the first outer wall portion defining an outwardly convex elliptical~~ly curved~~ curve and the second outer wall portion defining a conical path.

18. (Previously presented) The shut-off device as claimed in claim 17, characterized in that interfering means (25b, 26) are disposed in the region of the flow cross-section (24) formed between the closing body in the open setting and the housing (2).

19. (Previously presented) The shut-off device as claimed in claim 17, characterized in that the interfering means are baffles jutting into the flow cross-section (24).

20. (Previously presented) The shut-off device as claimed in claim 19, characterized in that the baffles having one or more interfering rings (25a, 25b) disposed on the housing (2).

21. (Previously presented) The shut-off device as claimed in claim 17, characterized in that the closing body (3) is configured as a hollow body.

22. (Previously presented) The shut-off device as claimed in claim 21, characterized in that the closing body is made from sheet metal and in that it is fastened on a guide tube (12).

23. (Currently Amended) A shut-off device having a housing (2) and having a rotationally symmetrical closing body (3), guided within the housing, which, under the influence of a dynamic pressure can be pressed out of an open setting, in two motional directions (s) against a valve seat (4) into a sealing close setting, wherein

on the inner side of the housing (2) between the valve seats (4), there are disposed interfering means (25b, 26) for generating a turbulent flow,

wherein said closing body (3) is comprised of at least two differently inclined or curved outer wall portions (5, 6, and 5', 6' respectively), said outer wall portions begin with a first outer wall portion (6 and 6' respectively) and then with a second outer wall portion 5 and 5' respectively), whereas the first outer wall portion defining an outwardly convex elliptical~~ly curved~~ curve and the second outer wall portion defining a conical path.

24. (New) An explosion protection valve (1) having a housing (2) and having a rotationally symmetrical closing body (3), guided within the housing, which, under the influence of a dynamic pressure can be pressed out of an open setting, in at least one motional direction (s) against a valve seat (4) into a sealing close setting and there can be locked in a closed position by means of a catch device,

wherein on the outer side of the closing body (3) in the region of the flow cross-section (24) formed between the closing body in the open setting and the housing, there are disposed interfering means (18, 25) for generating a turbulent flow for rapidly increasing the dynamic pressure inducing the closing movement from said open position into the closed position in which the closing body is locked by the catch device, the interfering means have at least one interfering edge (26), which extends at least partially along a flow cross-section (24) and at which at least two wall portions meet at an angle less than 180°,

whereas the closing body (3) is configured as a hollow body, in such a way that the outermost peripheral region is adapted to promote a spring action of the closing body.